Sign Law 1933

The Maryland Fruit Grower

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Niagara

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A. F. Vierheller, Extension Horticulturist

THE SIGN LAW

During the recent time when the Maryland law affecting licensed road signs became effective, thousands of signs were removed from the roadsides, and only licensed signs were allowed to remain. At the request of the Maryland State Bookkeepers' Association, an interpretation of the law was secured. It is as follows:

"Persons who are selling their own products are exempted from licensing a sign provided the sign in question refers only to such products, and is placed not more than 100 feet from the building where such products are sold, or the entrance to the grounds on which said building is located.

LADYBUGS AND FRUIT GROWERS

According to July-August, 1931 "American Hortigraphs," eight million ladybugs were liberated in Merced County, California, during May and June, to help control aphis in orchards and gardens. The Wenatchee, Washington fruit growers are buying ladybugs from regular dealers who get the bugs from under rocks where they hibernate, shovel them into sacks and put them in cold storage until needed. Growers use about 1000 bugs per acre, and report beneficial results in keeping down the aphis population. The bugs are bought in certain measures, figuring actual count of certain bulk, or measure, and are quoted at one dollar per thousand.

In Maryland the ladybugs and their larvae, as well as the larvae of syrphid flies were numerous in the orchards, this season, and undoubtedly they helped kill off many aphids.

A NEW POSSIBILITY

In the July, 1931 issue of "Better Crops with Plant Food," it was reported that a new chemical, ursolic acid has been obtained from the waxy coating of apple skins, by Dr. C. E. Sando, of the Bureau of Chemistry and Soils, U. S. Department of Agriculture. The resinous powder has possibility of use in increasing gloss and water resistance of cellulose lacquers, and of slowing down the drying of lacquers so as to allow better brushing and spreading. Dr. Sando found most ursolic acid in skins of Arkansas Black, Delicious and Grimes, while less amounts were found in Transparent, Rhode Island Greening and York. If demand warrants, about 500,000 pounds of ursolic acid could be obtained annually in this country, from apple pomance, and the apple skins from canning house refuse and apply drying plants. This matter is still in the experimental stage.

CONSUMER DEMAND FOR APPLES IN MICHIGAN

By H. P. Gaston, Michigan Agricultural Experiment Station
Special Bulletin 209. Jan., 1931. East Lansing, Michigan.

Here you will find some first hand information about the requirements of a consumer in Michigan stores (especially Detroit) in the purchase of apples. "What do consumers know about apples, what do they want, and how, when and where do they want them?" The apple of high quality, good color, size above 2¼ inches and free from disease and insect injury was required to meet the consumers demand. An apple below 2¼ inches was sold with difficulty and an apple between 2½ to 2¾ inches was in greatest demand. About 80% of the apples sold in Detroit were A grade (U. S. No. 1) or better which meant that B grade or commercial could be used for only 20% of the demand. More than half of the Michigan apple crop is packed out as commercial grade. Hence, Michigan growers are not supplying the grade of fruit which is in most demand. They are advised to "eliminate all but the best varieties, grow a better apple, standardize the pack and organize in such a way that it will be possible to supply straight cars in large volume." Such a program would supply a steady volume of a standard commodity to retailers who now purchase standardized high quality apples from other sections.

Abstract by A. Lee Schrader

* * *

HOW THE GROWERS CAN REDUCE THE CULL PILE

M. L. DEAN, Director, Idaho Bureau Plant Industry

To respond to such a subject as that it is necessary to retrospect somewhat; to go back to the origin of the fruit industry and follow its development, picking out the essential factors in its ups, and discard the causes of its downs.

Had we been in Boston, Massachusetts, nearly three hundred years ago, or to be exact, April 3, 1632, we could have "sat in" on the first introduction of the apple industry into North America. It was then that John Winthrop was appointed Governor of the Colony of Governors Island, with the stipulation that he should plant apple trees and vineyards, and as rent pay one-fifth of their production for twenty-one years. I do not know how much of an orchardist Governor Winthrop was, but I doubt if he used any nitrate, phosphoric acid, or potash; he probably paid but little, if any, attention to cover crops, and did very little spraying because as a matter of record his first crop amounted to two bushels. This was not consumed by the Puritans or small boys of the place, but by the legislators of the Island. Thus apple-growing had its birth in the New World.

It is impossible to trace each tree from that time until today, but if you will close your eyes for a moment and muse with me, you can see the pink blossoms pushing back the frontiers for nearly three hundred years. Today we have apples growing in nearly every

state of the Union; and from two bushels in 1650, we have from eighty to a hundred million bushels of strictly commercial apples each year, plus another million used in by-products.

During these three hundred years we have passed through two distinct eras and are now in the third, which is a period of purely agricultural economics. That it is the most intricate ever experienced by industries of any kind cannot be denied. The first era was non-commercial. It began with the early planters who planted for their own enjoyment and the pleasure of the neighborhood. The second era was a combination of commercial and non-commercial, covering the period between 1840 or 1845 to 1900; this era reached its peak of production at about the time of that big crop of 1896. This period resulted from the heavy planting which followed the Civil War.

I can remember when my father and grandfather sold Michigan Northern Spy, Baldwin and Rhode Island Greenings for 40c to 60c per barrel. Hence you see that the talk about over-production is not altogether a new thing.

The present commercial era started about 1905 and made rapid strides for several years following 1910. Many of you were here in the beginning of this period and are still here, experiencing the greatest commercial era that the industry has ever undergone. This growth has not only been predominant, but has shown a steadily increasing ascendency in the past twenty-five years; in the last few years almost a revolution has taken place. Today we are in the midst of the greatest commercial apple production and conservation period the world has ever seen. The real production and storage figures together with your own judgment and experience will lead you to realize the statement. Only a comparatively few years ago fifty to sixty-five per cent of the commercial apples were grown and stored in the State of New York. I can recall attending a Land Show in Madison Square Garden, New York City, in 1911, when New York flaunted a large banner over her exhibit, upon which were the words "New York grows more apples than are produced west of the Mississippi Valley." In less than twenty years this same western territory produced more than fifty per cent of the apples grown in the United States. The State of Washington alone produces a yearly average of more apples than does the State of New York.

This extraordinary growth of the industry in the western or box-apple States for the past twenty-five years has been a romance of horticultural development. I cannot refrain from giving you some figures. In 1900 the States of Washington, Oregon, and Idaho, were practically a zero from the standpoint of commercial production. In 1900 Yakima had the record of shipping two hundred carloads. In 1904 Wenatchee sent its first carload east of the Mississippi River. In 1898 Oregon sent its first carload of six hundred and thirty packed boxes of Spitzenburgs to New York City. Idaho was just coming into the limelight at this time. In 1900 the commercial production of apples in the group of States, Idaho, Oregon, Washington, Colorado, and Utah was negligible, and in twenty-three years these States

packed and shipped forty-eight millions of boxes to the domestic and foreign markets, being over fifty per cent of what was produced in the United States. But remember that this phenomenal production was not confined to these States. The Shenandoah and Cumberland sections made rapid strides in production. The New England States have large new acreages coming into production. The Hudson River and western New York and New Jersey have large new McIntosh acreages; Michigan is rapidly increasing her Rhode Island Greenings. Indiana and Ohio are also in the developing class. The United States Department of Agriculture reports show us that the bearing trees of today number about one-half what they did twenty-five years ago, but during the same time the average production per tree has nearly doubled.

From 1899 to 1903 the average yield per tree in the United States was nine-tenths of one bushel, but from 1924 to 1928 there was an increase per tree of eighty-nine per cent.

With the new areas coming into production under the improved methods of culture, it is difficult to anticipate the results, but one thing is quite evident: a careful study of economical quality production will be necessary if the cull pile is to be decreased.

The day of short crops has passed. About the last approach to one was in 1920, when the barrel-producing States were nearly a negligible factor. Yet the box States in the West came in with a harvest of over forty million boxes. In the face of this increased production, records show us that the per capita consumption of fruit was considerably less during the four years from 1922 to 1925, than from 1902 to 1906. During this latter period the consumption was 181 pounds per person. This dropped to 154 pounds during 1907 to 1911, and from 1912 to 1916 it rose to 83 pounds. During the war period 1917 to 1927, it increased 187 pounds, but since that time there has been a national trend toward citrus fruits, bananas, and grapes, which reached its highest period in 1925, when the five-year period showed an increase of fifteen per cent.

Another vital factor that we must visualize and to which we must give careful thought is the breaking up of the old mass-producing territory and the establishing of a broader distribution of production. Only a few years ago we could count the heavy producing areas on the fingers of one hand, but today we are finding heavy commercial-producing centers developing at the very thresholds of the large consuming centers. The auto truck is surrounding the eastern cities and commercial production is at their doors.

J. W. Park of the Federal Bureau of Agricultural Economics tells us in a recent bulletin, on "Market Supplies and Prices of Apples," that the truck movement into the cities of the New England States, New York, Baltimore, Philadelphia, and Virginia cities, is nearly twenty per cent, and in some cities it is fifty per cent of the fruit consumed, which is forcing the new commercial producers of those sections to look outside for a larger market for their product. In Chicago, in November, one could see quantities of New England's apples in the markets which shows that their competition is coming

west to meet western products. It is not uncommon to see apples trucked one hundred miles into the eastern cities. The same condition prevails in the Michigan, Ohio, and Indiana territories. Thousands of bushels of fruit are moving daily by truck and being delivered into the hands of the housewife. Some shippers will watch the rail movements and wonder why the markets are not stronger; their estimates are based upon car-lot shipments, and they do not see those train loads of fruit that the trucks are delivering to the very market where they used to deliver car lots.

Outlets? Sure there are outlets. Fortunately our Federal Bureau of Commerce for several years has had men in the foreign countries studying export problems and opening new markets for our fruits; today this is an enormous factor in distribution, having been developed in proportion to the industry itself. Let us look at the reports of the Agricultural Yearbook. Fifty years ago, or 1880, we find that during the ten years from 1880 to 1890, the average exports were about 570,000 barrels of apples, but no boxes, from 1890 to 1900, 700,000 barrels. In 1895 and 1896 the first box exports appeared on the horizon, with nearly 14,000 boxes. In 1900 the number reached 150,000. Now glance at the output of the past five years up to 1928. The average export of apples was 2,109,611 barrels and nearly 5,000,000 boxes; an average increase in barrels of three times and of boxes 30 times. Again compare two years (30 years apart) both outstanding crops of their period, 1896 and 1926. In 1896 the United States, up to that time established a record of exports and sent out 1,808,839 barrels, but not one box. In 1926 we exported 4,215,623 barrels and 6,384,155 boxes, which figures have not been excelled. Washington has a claim upon those markets, and in 1926 sent abroad 150,000 boxes and in 1928 over 6,000,000 boxes. During 1929 the export trade has been strong and has consumed vast quantities of Idaho apples.

I fear that many do not appreciate the value of this export market. If they would stop to realize what the result in price would be, if from two to six million boxes were thrown upon the domestic markets, they would better appreciate what the result would have been had not the Government and Pure Food Division in the past three years taken careful measures to keep the export markets open. Had these markets closed, apples would not have been worth as much as they were in 1896, before we had any export, and, as I have said, apples sold for fifty cents per barrel.

The length of the marketing season has been wonderfully extended by the cold-storage development. An apple a day, is now available every day in the year. The "apple season" of by-gone days is a thing of the past. Apples are to be had twelve months of the year, and with this broadening of the industry there has been a proportionate increasing demand by the consuming public for increased quality of products. Better appearance and more attractive packages are demanded by the trade.

We now approach the question at issue, "Reduction of the Cull Pile." Do we wish to reduce it? Or could we not say that some

years there may be an economic value in an increased cull pile? This takes us into the future, and tomorrow is the future. The proper method of handling perishable products, namely, our fruits, is so to handle them that they will return to the producer maximum profits. Here we meet the economics of orderly marketing. Mass production has been developed to the last degree, but the most equitable distribution of our products is still a problem, especially with an over-production, or a production that fails to bring a profit to the producer. We face that situation today under normal weather conditions, and especially when we try to dump all grades, good and poor, upon the markets and expect to get a profitable remuneration. I do not wish to take the position of the pessimist, that the situation is hopeless, because I believe that with the normal re-adjustment that is to follow, we are bound to emerge in a sound condition. This re-adjustment can be hastened and assisted in proportion to the degree to which economic trends, needs, and demands are recognized.

It will be helpful if we understand that one of the basic fundamental principles of the apple business, is that there is a limit to apple consumption, just the same as there is a limit to all food consumption. The absorption point of the apple industry is about thirty million barrels. When we have a crop in excess of that amount the price is reduced in proportion to the excess; but if the crop is below that figure, up goes the price proportionately. Imagine a hole equivalent to the capacity of the appetites of the whole world. You pour the apple crop into it until it is filled, and when the hole is full, what will you do with the surplus? Here the law of economics steps in and tells us that the market consumption of apples and all other food is limited at the best, and the real vital fundamental problem is to adjust production proportionately. Don't force upon the market more than enough to fill that hole, even though you are obliged to increase the cull pile, especially as long as we have that limited demand. In the judgment of many, this is the real principle behind the entire farm problem so far as it relates to food. It is not entirely a marketing problem, but a production problem. In proportion to the solution of the production problem, automatically the marketing problem will take care of itself. Recall the potato crop of 1928 vs. 1929, when a shorter crop created active demand, good prices, and returned to the producers millions of dollars.

With this in mind, what can we do to help solve the fruit marketing problem, and improve the methods of handling the perishables, at a larger profit?

First, curtail production. Don't overplant. Because you make money on one fruit one year, do not plunge into that particular kind. Study nation-wide trends and conditions. A shortage in some other section might have been responsible for your extra price in this year. Control excessive production by eliminating the culls in the orchard, and, if necessary, increase the cull pile.

Secondly, by better production. Increased production has been the theme of the best brains of the country for a decade; now "quality products" must occupy their attention. Just as an up-to-date manu-

facturing plant, well operated, will produce a high-grade product, so an apple tree of the proper variety, well grown, cared for as it should be, will produce an attractive product. Proper variety, yes. The day of "Heinz 57 Kinds" in the orchard is passed. Select a few varieties that you can grow best, varieties that are best adapted to your conditions, varieties that you like to grow, and that are popular in the best available markets; then, grow them better than anyone else. Eliminate all others. If the trees are young and vigorous, top work them to the up-to-date favorites; if they are badly deteriorated or pest contaminated pull them and replant. All other industries are remodeling and rebuilding manufacturing plants in order to produce up-to-date, quality products economically, to meet popular demands. Fruit growers must recognize the same economic principle, and lay the foundation for the future success of a reasonable production of good quality, attractive apples of desirable varieties. They must maintain an integrity of grade and pack, thereby eliminating the undesirable from the channels of trade. A closer study should be given to pruning, thinning, irrigation, and fertilization problems, all of which are fundamental to quality production.

Thirdly, by proper harvesting of the crop. Improper handling at harvest time destroys more fruit from a marketing standpoint than any other one operation. Croquet balls and paving blocks can be handled roughly and not be seriously injured. They can be piled promiscuously, under trees or open sheds and left indefinitely without fear of deterioration, and some growers appear to think apples can be handled in the same way. Rough handling, unnecessary bruising, and skin puncturing include the greatest percentage of defects, but they can be prevented by proper handling. The original value of large quantities of fruit is cut 50 per cent by these careless operations. Pick, handle, and pack carefully. Carefully picked is half marketed. An apple is a live organism, and begins to deteriorate the moment that the stem is separated from the tree. Check that process by placing it in storage as soon as possible after picking.

Dr. Hawkins says: "The life processes of fruit and vegetables are chemical or physical in nature and are governed by physical or chemical laws." The rate of chemical action is doubled or tripled for each 18 degrees F. rise in temperature. As a rule fruit will keep twice as long at 43 degrees as at 53 degrees. Twice as long at 31 degrees as at 36 degrees, and twice as long at 36 degrees as 43 degrees. In other words it will keep about eight times as long at 31 degrees as at 53 degrees. Why not get the benefit of this by getting the fruit into temperatures as near 31 degrees as possible, immediately after it leaves the tree?

Fourthly, by improving the grade and appearance of the pack. This cannot be emphasized too strongly. Times have changed, the consumer today demands quality, and does not want and will not pay a profit-producing price for poor or indifferent commodities. The people as a whole demand the best. They insist not only upon intrinsic merits, but on beauty and appearance, and do not hesitate to pay the price for quality. There is a multitude of goods on the

markets today competing for the consumer's dollar. Apples represent 21.7 per cent of all fresh fruit grown in this country, but do not forget that there are from 125,000 to 150,000 car lots annually placed upon the American markets.

The only place today for the low-grade by-product apple, is in the by-product factory. Too many of us are still unable to realize this fact. Don't starve the cull pile and by-products pile, at the expense of quality; they are the best friends of the progressive fruit grower. The consumer will no longer accept just anything that is offered him in any line. Peddlers realize this and many display more art in making their push carts attractive than we do in packing our fruit for the consumer. Beauty and appearance are two of the strongest purchasing appeals. Dame Nature puts the beauty upon the fruit, but leaves man to display it.

Fifthly, by strengthening the grades or at least maintaining what we have rather than lowering it to meet some other State grade.

Sixthly, by proper inspection.

Everybody loves an apple. In its perfection it has the beauty of the heavens and the nectar of the gods, but the industry up to date has lacked the vision to back with dollars the telling of the story of the apple to the world, so as to cash in on one of Nature's greatest gifts.

In conclusion, if the apple industry will recognize the foregoing fundamental, economic facts, all of which are within its reasonable power, it will assist economic laws in meeting the present problems, and in so doing the industry can face the future with hope and assurance that the cull pile may be reduced—and the bank account increased.

Reprint from 1930 Proceedings—Idaho State Horticultural Society

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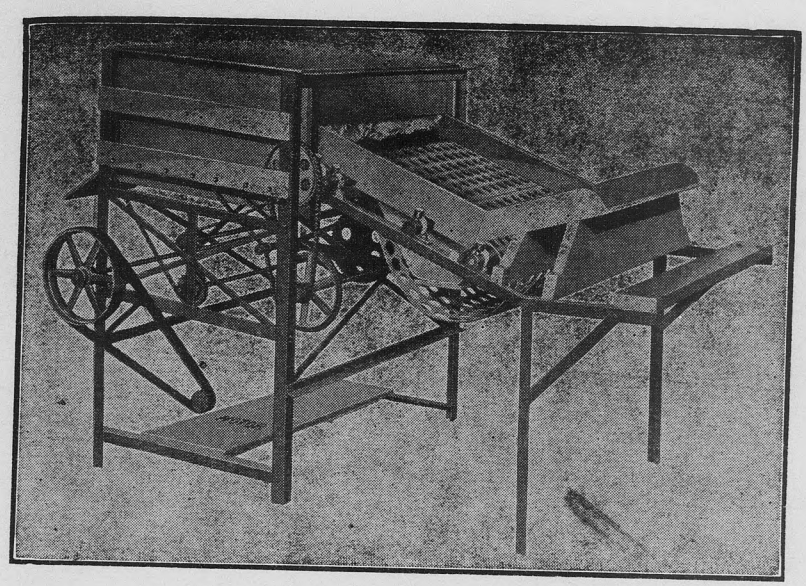

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